ABSTRACT

A portable data storage device includes a USB interface, a USB controller, a master control unit, and two or more NAND flash memory devices. The master control unit can send data to the NAND flash memory devices simultaneously through parallel respective 8-bit buses. The master control unit controls the operation of the memory devices by sending them identical control data through respective control signal lines. When data is to be stored it is divided into portions which are sent to the respective memory devices, and both memory devices are instructed to store data simultaneously. When data is to be retrieved both are instructed to write data back simultaneously to the MCU.